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Complete if Known Substitute for form 1449A/PTO 10/081,771 **Application Number** INFORMATION DISCLOSURE February 20, 2002 Filing Date STATEMENT BY APPLICANT COX. DAVID R. First Named Inventor Art Unit 1637 SPIEGLER, ALEXANDER H. **Examiner Name** (use as many sheets as necessary) UCSF-127CIP2 Sheet 1 1 **Attorney Docket Number**

			U.S. PATENT	DOCUMENTS	
Examiner	Cite	Document Number	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where Relevant Passages or Relevant
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Noc		WO 97/12993	04-10-1997	COX et al.		
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Application Number	10/081,771						
Filing Date	February 20, 2002						
First Named Inventor	COX, DAVID R.						
Art Unit	1655						
Examiner Name							
Attorney Docket Number	UCSF-127CIP2						

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Hol		FAHAM et al., ""Mismatch Repair Detection (MRD): High-Throughput Scanning for DNA variations", Human Molecular Genetics, 2001, 10(16): 1657-1664							

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10/081.771 **Application Number** Filing Date First Named Inventor Group Art Unit

February 20, 2002 Cox, et al. 1655 Unassigned

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Examiner Name **Attorney Docket Number** UCSF-127CIP2

				U.S. PATENT DOCUM	MENTS	
Examiner Initials'	Cite No. ¹	U.S. Patent Number (//	Documents Kind Code ² f known)	Name of Patentee or Applicant of Cited Documents	Date of Publication of Cited Document · MM-DD-YYYY	Pages, columns, lines, Where Relevant Passages or Relevant Floures Appear
HGC		4,959,3	17	Sauer	09-25-1990	
Nec		5,376,5	26	Brown, et al.	12-27-1994	
Hac		5,654,1	82	Wahl, et al.	08-05-1997	
HOC		5,679,5	22	Modrich, et al.	10-21-1997	

	FOREIGN PATENT DOCUMENTS									
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y/oc		FERRIN, et al. "Selective cleavage of human DNA: RecA-assisted restriction endonuclease (RARE) cleavage", Science (1991) Vol. 254: 1494-1497.	
Hec		GROMPE. "The rapid detection of unknown mutations in nucleic acids", <i>Nature Genetics</i> , (1993) Vol. 5: 111-117.	
Hac		LANDER, et al. "Homozygosity mapping: A way to map human recessive traits with the DNA of inbred children", <i>Science</i> , (1987) Vol. 236: 1567-1570.	
Hee		MASHAL, et al. "Detection of mutations by cleavage of DNA heteroduplexes with bacteriophage resolvases", Nature Genetics, (1995) Vol. 9: 177-183.	
Hae		MILLS, et al., "Electrophoretic Evidence That Single Stranded Regions of One or More Nucleotides Dramatically Increase the Flexibility of DNA," <i>Biochemistry</i> (1994), Vol. 33: 1797-1803.	
Hac		MODRICH. "Mechanisms and biological effects of mismatch repair", Annu. Rev. Genet., (1991) Vol. 25: 229-253.	
Hec		MYERS, et al. "Nearly all single base substitutions in DNA fragments joined to a GC-clamp can be detected by denaturing gradient gel electrophoresis", <i>N.A.R.</i> , (1985) Vol. 13: 3131-3145.	
Hac		MYERS, et al. "Detection of single base substitutions by ribonuclease cleavage at mismatches in RNA: DNA duplexes", <i>Science</i> , (1985) Vol. 230: 1242-1246.	
Hac	,	MYERS, et al. "Detection and localization of single base changes by denaturing gradient gel electrophoresis", <i>Meth. Enzym.</i> , (1987) Vol. 155: 501-527.	
Hoc		ORITA, et al. "Rapid and sensitive detection of point mutations and DNA polymorphisms using the polymerase chain reaction", <i>Genomics</i> , (1989). Vol. 5: 874-879.	
HOC		ORITA, et al. "Detection of polymorphisms of human DNA by gel electrophoresis as single-strand conformation polymorphisms", <i>P.N.A.S.</i> , (1989) Vol. 86: 2766-2770.	
fac		PARKER, et al. "Repair of DNA heteroduplexes containing small heterologous sequences in <i>Escherichia coli</i> ", <i>P.N.A.S.</i> , (1992) Vol. 89:1730-1734.	
Hac	/	PERRY, et al. "Hydrolink gels: A rapid and simple approach to the detection of DNA mutations in thromboembolic disease", <i>Clin Pathol.</i> , (1992) Vol. 45: 158-160.	

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Examiner Signature	Alex of	alink	Date Considered	11/26/2004

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First Named Inventor	Cox. et al.		
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Hac		RAPOSA, et al., "Some Features of Base Repair Mismatch and Heterology Repair in Escherichia coli," <i>Genetics</i> (1987), Vol. 117: 381-390.					
HOC		RISCH. "Linkage strategies for genetically complex traits: The power of affected relative pairs", Am. J. Hum. Genet., (1990) Vol. 46: 229-241.					
Hac		SANDA, et al. "Genomic analysis I: Inheritance units and genetic selection in the rapid discovery of locus linked DNA markers", <i>Nucleic Acids Res.</i> , (1986) Vol. 14: 7265-7282.					
Hec		SHEFFIELD, et al. "Attachment of a 40-base-pair G+C-rich sequence (GC-clamp) to genomic DNA fragments by the polymerase chain reaction results in improved detection of single-base changes", P.N.A.S. (1989), Vol. 86: 231-236.					
Hel		WAGNER, et al. "Repair tracts in mismatched DNA heteroduplexes", P.N.A.S., (1976) Vol. 73: 4135-4139.					
Age		WANG, et al. "Large-scale identification, mapping, and genotyping of single-nucleotide polymorphisms in the human genome", <i>Science</i> , (1998), Vol. 280: 1077-1082.					
Hod		WHITE, et al. "Detecting single base substitutions as heteroduplex polymorphisms", <i>Genomics</i> , (1992). Vol. 12: 301-306.					
Hac		YOUIL, et al. "Screening for mutations by enzyme mismatch cleavage with T4 endonuclease VII", P.N.A.S., (1995) Vol. 92: 87-91.					

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